Limon - Energy Listening Session Summary

The first listening session was held at the Limon Community Center in Limon, CO on Monday, July 22, 2013. The session was attended by 15 participants from industry and economic development organizations, and 8 staff from state partner agencies. The attendees are listed in the table below. Please note that this summary does not reflect the opinion of the State of Colorado, but rather provides a summary of comments from attendees that were with businesses and other non-state agency organizations.

Energy Efficiency - Discussion Points

- Geothermal electricity production from oil and gas wells could be a potential opportunity for the
 region. The electric power from such projects could be used to operate on-site production
 equipment or be transmitted on the grid. The U.S. Department of Energy (DOE) proposed a pilot
 program for oil and gas producers to implement the geothermal technology, but the program had
 no interested companies.
- A barrier to geothermal production may be publicly traded natural gas and oil companies, such as the producers in the region, finding it challenging to adjust the payment process to landowners to allow for the sale of electricity from a well. It will also be difficult for producers to add staff with the expertise to successfully implement the program. Additionally, land agreements were noted as a potential barrier for geothermal energy production from oil and gas wells. Mineral rights and land ownership is a complex subject, and the addition of another potential resource may be difficult to develop.

Advancements in Energy Production - Discussion Points

- Developing domestic water uses from dry oil and gas wells could be a potential opportunity for the
 region. The existing dry oil and gas wells could be studied for conversion to water wells. There is a
 facility in Northern Colorado that may currently be providing domestic high quality water from an
 existing oil or gas well bore. Implementing this type of technology could be supported by the
 creation of a special water district charged with overseeing the production of water production from
 dry wells.
- Wind turbine technology has advanced significantly from 1990 and additional improvements are still
 occurring year after year. The increased efficiency of wind turbines is allowing for greater
 production of the resource. A challenge for the wind industry is to create a more transportable
 resource that can be sold outside of Colorado in additional markets. Increasingly wind development
 is being undertaken because it is the most financially competitive source.
- Wind energy development in the region is viewed positively for providing a revenue stream to local landowners, as opposed to third party non-local owners.
- National level policies with clear direction could be helpful for future wind development.
- Establishing a market based system for renewable energy development could help rural electric cooperatives to cost-effectively bring renewable power online.

Federal and State Regulations and Incentives - Discussion Points

- There is currently successful collaboration occurring between state and federal agencies in wind energy development that includes the following examples:
 - Wildlife issues in particular have been approached with an interactive stakeholder process to develop best practices.
 - Colorado is currently one of the best siting environments for wind energy projects.
 - Other state agencies, such as CDOT, have been extremely flexible in allowing large loads to be inspected and monitored in an orderly and efficient manner.
- State level regulations could be better suited for energy production than federal regulations. The state government is more in tune with local communities, the local geology, and the local economy.
- Colorado should examine how industry networks operate in other states and in Canadian providences. Industry networks in regions of Canada are well organized and effective in dealing with issues surrounding regulations through information sharing and other collaborative activities. Industry summits in these regions have been held that bring together oil and gas decision makers and wind industry decision makers with a focus on developing solutions to regulation. These networks and summits may be more effective than political efforts they allow businesses to discuss with one another the best path forward on specific hurdles. Similar industry networks are active in North Dakota and Texas.
- Long term stability of incentives is necessary in order to plan effectively for wind development
 projects. The market would be more sustainable as long as everyone in the industry was aware of
 the long term incentive structure and could plan accordingly.

Infrastructure Stability and Smart Grid - Discussion Points

- Smart grid and advanced metering technologies may face challenges to install in rural regions where there are large distances between meters.
- K.C. Electric is currently using some smart meters that provide next-day usage data. The data from these meters has been helpful in monitoring infrastructure for such issues as transformer loading, and it has helped with demand management efforts. K.C. Electric is also able to better track and summarize energy consumption trends for particular days, weeks, and months. This summary information can be provided to their customers.
- K.C. Electric serves a large agriculture irrigation load and is under a long term contract in which they are required to purchase 95% of their power from Tri-State G&T.
- The City of Limon will be issuing a solicitation later this year for city infrastructure improvements.
 The city is interested in seeing where the companies are located geographically that submit a bid.
 There are currently few companies in the area that can provide infrastructure improvement services.

Alternative Fuel Vehicles - Discussion Points

• The state's natural gas vehicle activities are perceived to be focused on the I-25 corridor. The I-70 corridor in the Eastern Plains' region may be a good region to expand the initiative. There may be approximately 1.2 million heavy trucks that travel through Limon annually, and about 10,000

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- vehicles that stop in Limon each day. Currently, Limon and the surrounding region have no Compressed Natural Gas (CNG) or Liquefied Natural Gas (LNG) fueling infrastructure.
- The community would be interested in alternative fuel vehicles if they were confident in being able
 to use the vehicles as currently use traditional vehicles. Their use would require that they are able to
 travel long distances with access to fueling stations as well being able to travel over rough terrain in
 the region.

Business Development - Discussion Points

- Vestas has had success in working with local community colleges to help train their workforce.
- The area around Limon may be the only region in the state that does not currently have a main campus for higher education. Young residents must leave the community for higher education opportunities and may not return to the region for work.
- Vestas has been attempting to have their Colorado offices designated as foreign trade zones for several years. A foreign trade zone could encourage business expansion for companies such as Vestas that must deal with multiple vendors located in other countries.
- Vestas has had challenges convincing their suppliers to establish facilities within the U.S. Some of
 their suppliers appear to be hesitant to enter the U.S. market due to wind energy incentive
 uncertainty with a particular uncertainty surrounding the production tax credit.